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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/785,438
Filing Date: February 20, 2001
Appellant(s): SMITH ET AL.

MAILED

APR 18 2007

Technology Center 2100

William H. Bollman
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed January 22, 2007 appealing from the Office action mailed August 24, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 6453339 B1	Schultz; Thomas W. et al.	20020917
US 6389421 B1	Hawkins; John Christopher et al.	20020514

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US 6442589 B1	Takahashi; Tadashi et al.	20020827
US 20020091789 A1	KATARIYA, SANJEEV et al.	20020711
US 6029195 A	Herz; Frederick S. M.	20000222
US 5490252 A	Macera; Mario et al.	19960206
US 6088717 A	Reed; Drummond Shattuck et al.	20000711
US 6606596 B1	Zirngibl; Michael et al.	20030812
US 6477565 B1	Daswani; Neil et al.	20021105
US 6377570 B1	Vaziri; Faramarz et al.	20020423

International Business Machines: "A Process for Customized Information Delivery"

Research Disclosure Database Number 408143, Published April 1998.

The American Heritage Dictionary, fourth edition: used for the definition of XML

McConnell et al. " An Experimental 4-Mb flash EEPROM with Sector Erase", IEEE 1991.

Kantor et al. "Network News Transfer Protocol" RFC 977, 1986.

Small et al. "Calendar Attributes for vCard and LDAP" RFC 2739; Jan. 2000.

von-Bultzingsloewen et al. "Active Information Delivery in a CORBA based Distributed Information System" IEEE, 1996.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims **1-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz et al. (U.S. Patent Number **6,453,339 B1**), hereinafter referenced to as Schultz in view of Takahashi et al (U.S. Patent Number **6,442,589 B1**) hereinafter referenced to as Takahashi and further in view of Hawkins et al. (U.S. Patent Number 6,389,421 B1) hereinafter referenced to as Hawkins in view of Katariya et al. (US 2002/0091789) (hereinafter Katariya).

Regarding claim **1**, Schultz disclosed a system and method for presenting data from a plurality of sources to a user. The system includes a plurality of information sources, a user interface (**data event destination module 204a-c**), content storage and a server (**data worker module 200**) connected to the user interface and the content storage (**Abstract**). Schultz further discloses the delivery system is interposed between a data source (i.e. server 14.1) and a client 20 (Figure 2). Schultz depicted in **FIG. 3 and described in column 6 lines 9-12**, a way to reach the information source through a slave server (data source interface module 202). The user may be notified via e-mail or message to a channel when a particular event occurs which describes event-driven configurable structure. (**Abstract, Figs. 1-3, column 13 lines 19-31**).

Shultz taught to automatically selectively retrieving and presenting information or content (data it self) to end-users from at least one data source (data warehouse) and specifically a user interface with means for identifying data published (**figs. 1-3, column 3 lines 19-30 and 53-61, column 4 lines 55-61, column 5 lines 32-45 [providing pointers and storing content internally] and claims 4 and 20**), therefore depicting the features and means for the system automatically selectively retrieve and present data according to a fist user criteria (or a data worker).

Shultz, Takahashi and Hawkins expressed concern about users managing large amounts of information related to Internet-information-retrieval-outbreak (**see the Background of the Intention in column 1 in Shultz and Takahashi; and Hawkins in column 1 lines 15-25**). Shultz and Takahashi disclosed sending messages, alerts or notification to the user based on predetermined criteria, among other similarities (**Shultz column 4 lines 3-61 and Takahashi column 11, lines 1-65**).

It would have been obvious to one of ordinary skill in the art working with Shultz at the time the invention was made to modify the methods/systems of Shultz with the teachings of Takahashi, motivated by Takahashi to explore the art of facilitating the transfer of information from the WWW to a user's computer or to a central-processing/intermediary system (column 1 lines 20-36) and motivated by Shultz to provide tools to overcome the problem of requiring a long-time-to-retrieve-information and requirement of a learning curve in order to retrieve relevant information published

(for example in the Internet) (column 1 lines 20-38), in order to provide a system/method for automatically selectively retrieving information/content/data/messages from at least one data source based on predetermined user criteria (**Shultz: figs. 1-3, column 3 lines 19-30 and 53-61, column 4 lines 55-61, column 5 lines 32-45 [providing pointers and storing content internally] and claims 4 and 20**) (for example Messenger or Search Filter such as those taught by **Takahashi: figs. 3, 5 and 7**) and automatically selectively redistributing such information/content/data/messages to a destination device (for example personal computer, cellular phone, pager or fax as taught by **Takahashi: fig. 5 and taught by Shultz in column 6 lines 4-18**) based on predetermined user criteria (for example a router programmed with forwarding information as taught by **Takahashi: figs. 5 and column 8 lines 12-39**), therefore benefiting the end-user by facilitating the retrieval of relevant content from the growing plethora of information published in the Internet and other data sources in a timely fashion to a plurality of output devices.

Shultz combined with Takahashi, taught the invention substantially as claimed, however this combination did not expressively taught details regarding implementing processes in individual threads.

Hawkins disclosed an invention related to data retrieval and on behalf of a user (**column 1 lines 5-11 and column 2 lines 56-67**) and taught the implementation of processes related to user requests "Limiting to one watermarking thread per processor"

(column 4 lines 1-9 and lines 39-45). Additionally, Hawkins taught a decentralized approach based in the utilization of a plurality of processors (column 3 lines 63-67). Therefore Hawkins depicted information retrieval system acting on behalf of a user request that implements requests in threads and executes each thread individually.

It would have been obvious to one of ordinary skill in the art working with Shultz modified by Takashi, to further modify Shultz modified by Takahashi with the teachings of Hawkins, in order to further improve time required to retrieve information as taught by Hawkins in column 4 lines 1-9. Shultz modified by Takahashi motivated the exploration of the art of retrieving information from the Internet (Takahashi: fig. 2 [10]), which is part of the Hawkins disclosure in column 1 lines 5-25. Shultz modified by Takahashi motivated the exploration of the art of providing tools to overcome the problem of requiring a long-time-to-retrieve-information (Shultz: column 1 lines 20-38). The resulting combination would have provided a content retrieval system that implements user requests as individual threads or separate execution units (Hawkins: column 4 lines 1-9) enhancing the throughput and minimizing the long-time-to-retrieve-information problem.

Schultz-Takahasi-Hawkins does not specifically disclose a user object module implementable as an individual thread to aggregate services for an individual end user and that the data worker module performs the service for said user object module. In

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analogous art, Katariya discloses another information delivery system which discloses a user object module (i.e. web server 145) implementable as an individual thread (web servers can be implemented as a single thread) to aggregate services for an individual end user (p. 3, ¶ 25) and that the data worker module performs the service for said user object module (i.e. the retrieved “clips” are returned to the web server module which then aggregates the data to be presented to the user) (p. 3, ¶ 29-31).

It would have been obvious to one of ordinary skill in the art to combine the teaching of Katariya with Schultz-Takahasi-Hawkins in order to seamlessly aggregate information from a variety of information providers, thereby reducing time spent by the user correlating all the data from various sources on their own.

Shultz modified by Takahashi modified by Hawkins and further modified by Katariya is hereinafter referenced to as ‘**the combination**’.

Regarding claim 2, **the combination** further taught a method/system interfacing with a short messaging system (**Takahashi: column 7 lines 37-67**).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods/systems of Shultz with the teachings of Takahashi, motivated by Shultz to explore the art of sending short (headlines) alerts to end-users (column 3 lines 53-61), in order to provide a system/method for sending alerts in the

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form of e-mail or in the form of a short message formatted to be presented in a pager and sent to the end-user by interfacing with a short messaging system (Takahashi: fig. 5 [81] and column 7 lines 37-67). Therefore providing the benefit of reaching the user in a plurality of mobile destination devices.

Regarding claim 3, Schultz disclosed in a data entry device 20 and a server 12 as two separate components of the system 10, therefore describing an abstracted design. (Column 2 lines 57-65).

Regarding claim 4, **the combination** further disclosed the inclusion of a search engine 30 in **fig. 2, in Shultz** and further describes its purpose in **column 5 lines 24-32 in Shultz**.

Regarding claim 5, after a closer review of the prior art Examiner clarifies that **the combination taught** specific details regarding a query engine adapted to query a web page for content (**Takahashi: column 4 line 50 to column 5 line 54**). In particular in **column 5 lines 43-57**, Takahashi recites:

"The present invention is also preferably used with a programmable information collector 100. The programmable information collector may be a conventional news clipping application for **searching the World Wide Web 105**. However, preferably the programmable information collector comprises one of the information assistants of the BEHALF application of Fujitsu, Ltd. **The information collector 100 preferably has a search filter 102 that utilizes keyword(s) and/or other search criteria to search one or more user-selected web-sites**. Preferably the user may program the times at which programmable information collector 100 searches for information. As indicated in FIG. 3, information acquired by programmable information collector 100 is stored in the message document storage module 90."

2. Claims **10 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above; and further in view of International Business Machines Corporation (**A Process for Customized Information Delivery**), hereinafter referenced to as IBM.

Schultz-Takahasi-Hawkins-Katariya is hereinafter referenced to as '**the combination**'.

Regarding claim **10**, **the combination** did not teach specific details regarding a formatter module to format content into XSL-information.

IBM teaches that the web pages are then run through a speech synthesizer to create an audio file, therefore describing a module that effectively changes the format of the information or content (**paragraph 6 line 1**). The advantage of the format change taught by IBM is to provide the user with the information in a way that he/she won't need to use his/her hands and eyes while driving the car.

It would have been obvious to one of ordinary skill in the art working with **the combination** at the time the invention was made to further modify **the combination** with the teachings of IBM to ease the information retrieval for the user, in order to provide the user with the information in a way that he/she won't need to use his/her hands and eyes while driving the car as taught by **IBM in paragraph 6**; motivated by

the suggestion found in **the combination** to convert data to be presented to the user in an output device (**Takahashi: Fig. 5 [80]**).

Regarding claim **14**, web pages are created with HTML, therefore its inherent that the information received by the data source interface as disclosed by IBM contains HTML format data (see web page definition in The American Heritage® Dictionary, fourth edition, page 1554).

3. Claim **6-9, 19 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above, and further in view of Herz (U.S. Patent Number **6,029,195**), hereinafter referenced to as Herz.

Schultz-Takahasi-Hawkins-Katariya is hereinafter referenced to as '**the combination**'.

Regarding claim **6**, **the combination** taught the invention substantially as claimed however, **the combination of Shultz with Takahashi** did not teach specific details regarding a query engine adapted to query a database for content.

Herz describes a supporting architecture further describing an electronic media system architecture, in which the information is comprised of individual "files", which can contain audio data, video data, graphics data, text data, structured database data and

combinations thereof (**column 33 lines 43-45**). The advantages of searching a database to find information are well known to one with ordinary skills in the art at the time of the invention and include access to vast amounts of information arranged for ease of retrieval.

It would have been obvious to one of ordinary skill in the art working with **the combination** at the time the invention was made to further combine **the combination** with the teachings of Herz, motivated by Herz to exploration of the art of using the WWW (**column 8, lines 18-21**) or the internet (taught by Shultz as a factor worsens the problem to be solved in **column 1 lines 26-28**) in order to provide a system that specifically query a database for content to add a different data source. Moreover strong suggestion to query a database for content is found in **the combination (See Shultz figure 3 [16 and 44] and figure 4, and column 6 lines 4-17)**.

4. Regarding claim **19**, **the combination** taught the invention substantially as claimed however **the combination** did not teach specific details regarding a Lotus database.

Herz describes a supporting architecture further describing an electronic media system architecture, in which the information is comprised of individual "files", which can contain audio data, video data, graphics data, text data, structured database data and combinations thereof (**column 33 lines 43-45**) and specifically extending the invention to search E-mails in **column 77 lines 16-77**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify **the combination** with the teachings of Herz to query an e-mail database (**taught by Herz in column 77 lines 16-77**) such as a Lotus database to augment the searchable data sources; given the motivation provided by **the combination** to explore the art of using an e-mail server as source (**Takahashi: fig. 2 and fig. 3 [52]**).

Regarding claim **21**, **the combination** further modified with the teachings of Herz taught the invention substantially as claimed. However, **the combination** further modified with the teachings of Herz did not expressly teach specific details regarding the use of XSL. Nevertheless, according to the definition of XSL, it is a language that allows describing how files are encoded in XML. It is well known in the art that XSL is a language, which allows one to describe how files encoded in the XML standard are to be formatted. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use in an environment using XML, wherein XSL is inherent, instead of HTML found in web pages (**Takahashi: column 4 line 50 to column 5 line 54**) as a substitute markup language for data exchange.

Regarding claim **7**, **the combination** did not teach specific details regarding a query engine adapted to query a database for content using JDBC. However the advantages of JDBC are well known in the art of communicating with data sources (databases),

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such advantages by definition include: (a) It provides the specification for programs written in JAVA to connect with popular databases and (b) allow to encode access request statements written in Structured Query Language (SQL). It would have been obvious to one of ordinary skill in the art working with **the combination** at the time the invention was made to further modify combine **the combination** with the teachings of Herz to query a database for content using JDBC to gain access to a plurality of well known databases from programs written in JAVA.

Regarding claim 8, Herz further describes a supporting architecture further describing an electronic media system architecture, in which the information is comprised of individual "files", which can contain audio data, video data, graphics data, text data, structured database data and combinations thereof (**column 33 lines 43-45**), Herz further inherently disclosed querying an e-mail account in **column 77 lines 16-77**.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify **the combination** with the teachings of Herz to query e-mail accounts for content (**column 33 lines 43-45 and column 77 lines 16-77**), since e-mail accounts are well known to be stored in electronic mail databases or other type of searchable electronic files, thus adding a different data source to **the combination**.

Regarding claim **9**, Herz further teaches a system that evaluates the target profiles against the users' target profile interest summaries to generate a user-customized rank ordered listing of target objects (**column 1 lines 27-30**) and said target objects are described to be electronically stored as text files can include commercially provided news articles, published documents, letters, user-generated documents, descriptions of physical objects, or combinations of these classes of data (**column 33 lines 52-56**), therefore describing documents in different formats but stored in text format (transformed from their original format).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify **the combination** with the teachings of Herz to improve information retrieval time by tenderizing the format in which the information is stored as taught by Herz in **column 1, lines 27-30 and column 33, lines 52-56**.

5. Claims 11,12, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above; and further in view of the definition of XML in The American Heritage® Dictionary, Fourth Edition.

Schultz-Takahasi-Hawkins-Katariya is hereinafter referenced to as '**the combination**'.

Regarding claims **11 and 12**, **the combination** did not teach specific details regarding the use of XML information transmitted from the data event destination

module or received by the data source interface module; and also fail to teach the use of a protocol converter. According to The American Heritage® Dictionary, XML is a meta-language written in SGML that allows one to design a markup language and facilitates the exchange of data. It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify **the combination** teachings to use a widely known language such as XML to facilitate data exchange and resend the user the information in an uniform format.

Regarding claim **12**, since the invention is conceived to retrieve information form a plurality of data sources It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a protocol converter to provide a single protocol transmission. Moreover **the combination** taught converting formats, which is commensurate with converting protocols, in order to forward data to user devices (**Takahashi: Fig. 5 [80]**).

Regarding claim **15**, **the combination** further disclosed the inherent use of IMAP to communicate with e-mail server as depicted in Takahashi in figures 2 and 3.

Regarding claim **16**, since the invention is conceived to retrieve information form a plurality of data sources It would have been obvious to one of ordinary skill in the art at the time the invention was made to retrieve the requested information using a widely known language such as XML to facilitate data exchange.

6. Claim **13** is rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above; further in view of the definition of XML in The American Heritage® Dictionary, Fourth Edition and further in view of McConnell et al. (An Experimental 4-Mb Flash EEPROM with Sector Erase) hereinafter referenced to as McConnell.

Schultz-Takahasi-Hawkins-Katariya is hereinafter referenced to as '**the combination**'.

The combination of **the combination** in view of the XML definition taught the invention substantially as claimed, however did not teach specific details regarding XML data stream one byte at a time. Takahashi disclosed a system/method transmitting messages to devices with limited resource (pager) (fig. 2). McConnell teaches memory that may be programmed 1 byte at a time while describing an experimental EEPROM flashing process on 4-Mbs density flash memories (**McConnell: abstract**). Portable devices do not incorporate large amounts of resource due to space constraints and other limitations.

It would have been obvious to one of ordinary skill in the art at the time the invention was made further modify **the combination** in view of the XML definition with the teachings of McConnell (**McConnell: abstract**) or with common knowledge in the art to

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read large amounts of data sub-dividing said data for transmission or processing to overcome hardware limitations.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above, further in view of Herz (U.S. Patent Number 6,029,195), hereinafter referenced to as Herz and further in view of Kantor et al. (Request for Comments: 977, Network Working Group) hereinafter referenced to as Kantor.

Schultz-Takahasi-Hawkins-Katariya is hereinafter referenced to as '**the combination**'.

The combination did not teach specific details regarding a news serve as a data source.

Herz teaches a system that receives articles for storage in the mass storage systems of the information servers (**column 62 lines 47-55**). Those articles are described as to be online and available from a wide variety of sources such as the AP or Reuters (**column 63 lines 26-28**).

It would have been obvious to one of ordinary skill in the art working with **the combination** at the time the invention was made to further modify **the combination** with the teachings of Herz (**column 63 lines 26-28**) to augment the searchable data

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sources. Having said that, NNTP to communicate with a “news server” is inherent in it is in Herz (**column 63 lines 26-28**); moreover the use of such protocol it is a well know in the art to be used to transfer articles between servers (**Request for Comments: 977, Sections 1.2-1.4**). **The combination** motivated the exploration of the art of using news servers as sources of information (**Takahashi: column 4 lines 58-59**).

8. Claim **18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above; and further in view of Small et al. (**Request for Comments: 2739, Network Working Group**) hereinafter referenced to as Small.

Schultz-Takahasi-Hawkins-Katariya is hereinafter referenced to as **‘the combination’**.

The combination of did not teach specific details regarding a vcalendar as a data source.

Small teaches clients that are capable of retrieving information from calendaring and scheduling systems (**section 1.1**).

It would have been obvious to one of ordinary skill in the art working with **the combination** at the time the invention was made to further modify **the combination**

with the teachings of Small (**section 1.1**) to augment the searchable date sources, in order to improve **the combination** by adding additional data sources to be searched including calendar sources such as those taught by Small in **section 1.1**.

9. Claim **20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahashi-Hawkins-Katariya, as applied above; and further in view of Macera et al. (U.S. Patent Number **5,490,252**), hereinafter referenced to as Macera.

Shultz modified by Takahashi and further modified by Hawkins is hereinafter referenced to as '**the combination**'.

The combination did not teach specific details regarding a SNMP MIB as a data source.

Macera teaches a system wherein through extensions to the SNMP MIB, information can be collected; describing every element of the BES network including all supported network-layer protocols and network circuit types (**column 8 lines 62-65**).

It would have been obvious to one of ordinary skill in the art working with **the combination** at the time the invention was made to further modify **the combination** with the teachings of Macera to augment the searchable date sources; therefore improving the teachings of **the combination** by adding capabilities such as collecting

information in a BES network wherein by means of an SNMP MIB as depicted in Macera in **column 8 lines 62-65**.

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahashi-Hawkins-Katariya; and further in view of Reed et al. (U.S. Patent Number **6,088,717**), hereinafter referenced to as Reed.

Shultz modified by Takahashi and further modified by Hawkins is hereinafter referenced to as **'the combination'**.

The combination did not teach specific details regarding the adapted data worker capable of generating an event listener capable to be activated at behest of the user.

Reed teaches a communication system that allows users to receive an e-mail notification from a database agent monitoring the database when a new entry or a certain condition has been made in that database (**column 6 lines 62-66**). Reed teaches that data exchange event initiated either manually by the consumer or automatically (**column 76 lines 8 and 9**).

It would have been obvious to one of ordinary skill in the art working with **the combination** at the time the invention was made to further modify **the combination** with the teachings of Reed to provide the user the monitoring functionality and the

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manually triggered activation of said monitoring functionality in order to improved **the combination** with Reed's teachings by adding additional a flexible monitoring (event listener) functionality that can be activated automatically or at user behest as depicted in Reed in **column 6, lines 62-66 and column 76, lines 8 and 9**.

11. Claims **23, 24 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above; further in view of Reed et al. (U.S. Patent Number **6,088,717**), hereinafter referenced to as Reed as applied to claim 22 above; and further in view of von-Bultzingloewen et al. (**Active Information Delivery In A CORBA-Based Distributed Information System**) hereinafter von-Bultzingloewen.

Schultz-Takahasi-Hawkins-Katariya is hereinafter referenced to as '**the combination**'.

The combination modified with the teachings of Reed did not teach specific details regarding a data destination filter. von-Bultzingloewen teaches a process to monitor database value changes, upon the detection of a change three CLIPS rules are executed. The first one to indicate that an event has occurred, effectively detecting "a change in content". The second one to querying the changed value and creating a fact. A third one to compare the new value to a limit value to determine if no action will proceed or if a notification will be sent, effectively detecting "a particular change in the

content” and determining or “filtering” the action to be taken (**page 225 paragraphs 1 and 2**). Shultz combined with Reed would result to be improved if combined with von-Bultzingloewen teachings by adding the advantage of different actions depending on the event that is monitored. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Shultz, Reed and von-Bultzingloewen to provide the user the monitoring functionality and different reactions to different events results.

12. Claims 26, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above; and further in view of Zirngibl et al. (U.S. Patent Number **6,606,596**), hereinafter referenced to as Zirngibl.

Schultz-Takahasi-Hawkins-Katariya is hereinafter referenced to as **‘the combination’**.

The combination disclosed the invention substantially as claimed including a system wherein a data entry device includes a user interface that **allows the user to select data in an individualized way and motivates the exploration of the art in providing alerts (monitoring or listeners)** (Shultz: figs. 1-3, column 3 lines 19-30 and 53-61, column 4 lines 55-61, column 5 lines 32-45 and claims 4 and 20).

Zirngibl disclosed a system and method for the creation and automatic deployment of personalized, dynamic and interactive voice services, including information derived from on-line analytical processing (OLAP) systems and other data repositories. According to one of the disclosed embodiments Zirngibl disclosed that once a voice service is created, the system monitors predetermined conditions to determine when the voice service should be executed (event listener). Each voice service is executed when one or more predetermined conditions are met as specified during creation of the voice service. For example, a voice service may be executed according to a predetermined schedule or based on a triggering event (e.g., one or more conditions are met based on the output of an OLAP or other report). In the OLAP report implies the monitoring of a particular source and scheduled of triggered actions represent means for automatically and periodically executing an actions. When the predetermined condition is satisfied, the voice service is executed. Executing a voice service includes the steps of generating the content specified by the voice service and the user preferences. Some users may have identical personalization options and, thus, a single call structure may be generated for a group of users with identical personalization options. The content of the voice service includes the information that is to be delivered (directed) to users of that voice service, and the Input to be requested from the user, among other things. The content may include, for example, static text messages, dynamic content (e.g., text based on information output from an OLAP report, other database or other sources) or blended text (e.g., static text combined with dynamic content). One of the embodiments described by Zirngibl comprise connection lines computer networks, where it is evident

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that the monitoring and receiving devices are independent or abstract (**Abstract, FIG. 10, column 2 lines 44-65, column 7 lines 19-27, column 8 lines 6-15 and column 27 lines 14-57**). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the inventions to combine the combination of Shultz and Takahashi with the teachings of Zirngibl, motivated by Shultz to explore the art of monitoring and alerting (**column 4 lines 3-13**), in order to obtain the claimed invention with the advantages of a single device performing both functions and a more sophisticated monitoring and alert system/method.

13. Claims **27 and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above; and further in view of Zirngibl et al. (U.S. Patent Number **6,606,596**), hereinafter referenced to as Zirngibl and further in view of Daswani et al. (U.S. Patent Number **6,477,565**), hereinafter referenced to as Daswani.

The combination of Schultz-Takahasi-Hawkins-Katariya and Zirngibl did not teach specific details regarding the use of a wireless network in the invention. Daswani disclosed a system wherein a data center accesses the Internet and a wireless network that includes a notebook computer (**abstract, FIG 1, Column 6 lines 1-26**). The advantages of accessing to wireless networks as taught by Daswani would include, but are not limited to, the utilization of a satellite links to overcome large geographical distances. It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the combination of Shultz, Takahashi and Zirngibl, motivated by Takahashi to explore the art of wireless communication (**fig. 2**) with the teachings of Daswani to access a wireless network to retrieve data from databases and applications residing in such network exploiting the advantages of such wireless access.

14. Claims **28, 29 and 33-38** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above; and further in view of Zirngibl et al. (U.S. Patent Number **6,606,596**), hereinafter referenced to as Zirngibl; and further in view of von-Bultzinsgloewen et al. (**Active Information Delivery In A CORBA-Based Distributed Information System**) hereinafter von-Bultzinsgloewen.

Schultz-Takahasi-Hawkins-Katariya and Zirngibl did not teach specific details regarding to define a change in content or a presence of a parameter as triggering events. von-Bultzinsgloewen disclosed in their paper a monitoring system that focuses on monitoring the change in content of a data source, which is an event that triggers a content analysis process. The content is then analyzed as a parameter against a threshold rule, which can be a trigger for a second event (**Pages 220-225**). One of the advantages monitoring the changes in content and using it as parameters is the capability to automate manual reviewing of data thus enhancing the accuracy and reducing the time required for reviewing data.

Regarding claim **35** the combination of Schultz-Takahasi-Hawkins-Katariya, Zirngibl and von-Bultzinsgloewen **taught** means for automatically and periodically directing content to a destination device (**Takahashi fig. 5 and 11 and claim 12**).

It would have been obvious for one with ordinary skills in the art at the time the invention was made to combine the combination of Shultz, Takahashi and Zirngibl with the teachings of von-Bultzinsgloewen, motivated by Takahashi to explore the art of triggering events based on filtering conditions (**figs. 6 and 7**), in order to incorporate the advantages of more accurate results by monitoring change in content of data.

15. Claims **39-47** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz-Takahasi-Hawkins-Katariya, as applied above.

Claims **39-47** recite the limitation that said individual threads are implemented as a decentralized approach, which was taught by the combination in Hawkins (**column 3 lines 63-67**).

(10) Response to Arguments

Appellant's arguments (Brief, pages 7-22) have been fully considered but are not persuasive.

In the Brief, Appellants argues as follows:

(A.1) The need to combine four references is an indication of the non-obviousness of claims 1-5 and 39-47 (Brief, page 7). The examiner disagrees. Appellants should be aware that reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991). Where, as in the instant case, the references are properly combinable and would suggest the claimed invention to one of ordinary skill in the art at the time the invention was made, the number of references relied upon is immaterial and the rejection is proper. By this rationale, the rejection should be maintained.

(A.2) The Examiner continues to ignore what the threads are being used for when making the rejection (Brief, page 7). The examiner agrees. Appellants must be aware that whatever the threads are being “used for”, is merely a statement of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The threads of Hawkins are capable of aggregating services for an individual end-user and thus meet the claim limitation. By this rationale, the rejection should be maintained.

(A.3) the Examiner has failed to provide motivation for one of ordinary skill in the art to modify Schultz to implement a plurality of processors (Brief, page 8). The

examiner disagrees. As shown in the rejection above, one of ordinary skill in the art would be motivated to modify the system of Shultz to implement a plurality of processors in order to reduce context changes commonly associated with multiple threads on a single processor. Each thread having its own processor would reduce the overhead in switching processing of threads. In Shultz each thread has to halt, store their register values in memory, find the next thread to execute, load that particular register values from memory, and then continue the execution of the thread. This results in considerable overhead processing. Implementation of executing a thread on its own processor as provided in Hawkins (col. 4, lines 1-5) would reduce the necessary context switching needed to execute multiple threads on a single processor. This multiprocessor system would increase the overall throughput by reducing the need of this context switching. Hawkins clearly provides sufficient motivation to one of ordinary skill in the art to implement this change because it would increase overall throughput of the system of Shultz by using multiple processors to execute threads. By this rationale, the rejection should be maintained.

(A.4) The Katariya reference fails to use individual threads as a web server. The examiner agrees to the extent that Katariya does not explicitly disclose the use of individual threads as a web server; however, Appellant is respectfully reminded that not only the specific teachings of a reference but also reasonable inferences which the artisan would have logically drawn therefrom may be properly relied upon in formulating a rejection. In re Preda, 401 F.2d 825, 159 USPQ (CCPA1968) and In re Shepard, 319

F.2d 194, 138 USPQ 148 (CCPA 1963). Keeping this in mind, one of ordinary skill in the art would know that a web server is commonly implemented as an individual thread. In support of this contention, the examiner has provided Vaziri et al. (USPN 6,377,570) as an evidence reference. A careful review of Vaziri et al. shows that "server functions can be implemented in a single process *and do not require threads in the sense of a multithreaded server*" (col. 18, lines 49-51). Users of the system of Katariya would clearly have known that the web server can be implemented as a single thread and therefore meets the claimed user object module implemented in a single thread.

Furthermore, the claim does not even require that the user object module **be** a thread. The claim language states that the user object module is **implementable as a thread** (see claim 1). In the broadest reasonable interpretation of the term "implementable" is that the user object module **is able to be** implemented, which does not require that it **must** be implemented in this fashion, as argued by Appellant. It can clearly be construed that the web server of Katariya can easily be implemented as an individual thread, and therefore the rejection is proper. By the rationales presented above, the rejection should be maintained.

Appellants repeat their contention that the number of reference relied upon is evidence of non-obviousness in subsections B-M of the arguments section of the brief. This is substantively the same argument as was refuted above in point (A.1). In the interest of brevity, the examiner respectfully directs the Board's attention to that response above. Appellants repeat their contention that Katariya fails to disclose an

individual thread to aggregate services for an individual end-user in subsections B, C, and E-M. This argument is substantively the same argument as was refuted in point (A.4). Again, in the interest of brevity, the examiner respectfully directs the Board's attention to that response above.

(D.2) The combination of Shultz, Takahashi, Hawkins, Katariya and XML fail to disclose an information delivery system interposed between a data source and a destination device that implements user objects as individual threads (Brief, page 12). The examiner disagrees. Katariya discloses a system interposed between a data source (i.e. information providers 130) and a destination device (i.e. Internet users 110) (Katariya: Figure 3). Furthermore Appellant's argument regarding a user object being implemented as individual thread, the Examiner does not see a particular "user object" in any of the claim. This appears to be a typographical error and should read "user object module". As such, this argument has been refuted in point (A.4). The Office has clearly shown that Katariya does, in fact, disclose "a user object module implemented as a single thread to aggregate services for an end-user". By this rationale, the rejection should be maintained.

(11) Related Proceeding(s) Appendix

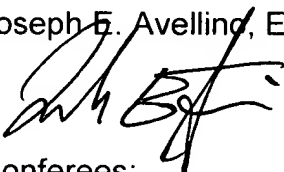
No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

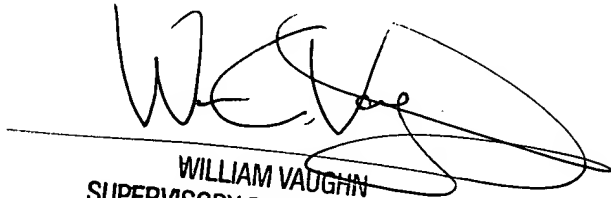
Respectfully submitted,

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